

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

COMPLETE LISTING OF CLAIMS:

Claims 1-23 : (Canceled)

Claim 24 : (Currently Amended) A method of controlling signal launch power of at least one optical signal in an optical communication network, comprising the step of: pre-distorting the launch power of the at least one optical signal in accordance with a known value of a bandwidth of a modulation signal used to modulate the at least one optical signal, by passing the at least one pre-distorted optical signal through an optical amplifier, and by comparing a signal derived from an output of the optical amplifier with a reference signal dependent on the known value of the bandwidth of the modulation signal used to modulate the at least one optical signal by using a comparator.

Claim 25 : (Previously Presented) The method as claimed in claim 24, wherein the pre-distorting step is performed by pre-distorting the launch power of the at least one optical signal in accordance with a known value of expected noise on a signal path of the at least one optical signal.

Claim 26 : (Previously Presented) The method as claimed in claim 25, wherein the known values are provided by management systems of the optical communication network.

Claim 27 : (Previously Presented) The method as claimed in claim 25, wherein the known values are provided by a network and connectivity information unit.

Claim 28 : (Previously Presented) The method as claimed in claim 25, wherein the known values are supplied by a supervisory channel.

Claim 29 : (Canceled)

Claim 30 : (Canceled)

Claim 31 : (Currently Amended) The method as claimed in claim 25, wherein the known value for expected noise on the signal path of the at least one optical signal is derived from a knowledge of a number and a type of ~~an optical~~ the optical amplifier through which the at least one optical signal will pass.

Claim 32 : (Currently Amended) The method as claimed in claim 24, wherein the optical communication network carries an n channel multiplex, and ~~wherein the pre-distorting step is performed by an optical amplifier.~~

Claim 33 : (Previously Presented) The method as claimed in claim 24, wherein the launch power of the at least one optical signal with an associated modulation signal of a higher bandwidth is pre-distorted to increase a signal level of the at least one optical signal compared to an optical signal with an associated modulation signal of a lower bandwidth.

Claim 34 : (Previously Presented) The method as claimed in claim 25, wherein the launch power of the at least one optical signal is pre-distorted to increase a signal level of the at least one optical signal when the expected noise on the signal path of the at least one optical signal through the network is higher compared to an optical signal having a lower than expected noise on its signal path through the network.

Claim 35 : (Currently Amended) An apparatus for controlling signal launch power of at least one optical signal in an optical communication network, comprising:

- a) a launcher for launching the at least one optical signal onto the network; **and**
- b) means for pre-distorting the launch power of the at least one optical signal in accordance with a known value of a bandwidth of a modulation signal used to modulate the at least one optical signal signal;
- c) an optical amplifier through which at least one pre-distorted optical signal is passed in use; and
- d) the pre-distorting means including a comparator for comparing a signal derived from an output of the optical amplifier with a reference signal dependent on the known value of the bandwidth of the modulation signal used to modulate the at least one optical signal.

Claim 36 : (Previously Presented) The method as claimed in claim 35, wherein the means for pre-distorting the launch power of the at least one optical signal is also operative for pre-distorting the launch power of the at least one optical signal in accordance with a known value of expected noise on a signal path of the at least one optical signal.

Claim 37 : (Previously Presented) The apparatus as claimed in claim 36, wherein the known values are provided in use by management systems of the optical communication network.

Claim 38 : (Previously Presented) The apparatus as claimed in claim 37, wherein the known values are provided by a network and connectivity information unit.

Claim 39 : (Previously Presented) The apparatus as claimed in claim 37, wherein the known values are supplied by a supervisory channel.

Claim 40 : (Canceled)

Claim 41 : (Canceled)

Claim 42 : (Currently Amended) The apparatus as claimed in claim 36, wherein the expected noise is derived from a number and a type of the optical amplifier through which the at least one optical signal will pass in the optical communication network.

Claim 43 : (Currently Amended) The apparatus as claimed in claim 35, wherein the optical communication network is adapted to carry an n channel multiplex; and wherein the launch power of the at least one optical signal is pre-distorted by an optical amplifier in use.

Claim 44 : (Previously Presented) The apparatus as claimed in claim 35, wherein the pre-distorting means is operative for increasing a signal level of the at least one optical signal with an associated modulation signal of a higher bandwidth compared to an optical signal with an associated modulation signal of a lower bandwidth.

Claim 45 : (Previously Presented) The apparatus as claimed in claim 36, wherein the pre-distorting means is operative for increasing a signal level of the at least one optical signal having a higher than expected noise on its signal path through the network compared to an optical signal having a lower than expected noise on its signal path through the network.

Claim 46 : (Previously Presented) The apparatus as claimed in claim 35, wherein the apparatus is an add/drop node.